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09/787,277	06/15/2001	Shinichi Takarada	2001-0297A	6250

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EXAMINER

PATEL, KANJIBHAI B

ART UNIT PAPER NUMBER

2625

DATE MAILED: 04/06/2004

6

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/787,277

Applicant(s)

TAKARADA, SHINICHI

Examiner

Kanji Patel

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 15 June 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☒ Claim(s) 4-15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 June 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Drawings***

1. Figures 4 and 6 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Specification***

2. The abstract of the disclosure is objected to because it is not in a single paragraph. The abstract should be limited to a single paragraph on a separate sheet within the range of 50 to 250 words. See MPEP 608.01(b)

Correction is required.

### ***Claim Objections***

3. Claims 1-3 are objected to because of the following informalities:

Claim 1, line 1, change "The image" to --An image--.

Claim 1, line 8, change "the" to -- a--.

Claim 1, line 10, change "the amending " to -- an amending -- and "the basis" to --a basis--.

Claim 1, line 11, change " the distance" to --a distance--.

Claim 1, line 12, change "the data" to --a data--.

Similar changes are required for claims 2 and 3.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

**Claims 1-3** are rejected under 35 U.S.C. 102(e) as being anticipated by Kawabe (US 6,654,510 B1).

**For claim 1**, Kawabe discloses an image processing apparatus which converts a low-resolution image to a high-resolution image (figure 4a; original image is enlarged using interpolation which corresponds to a conversion of low resolution image to a high resolution image) comprising:

a pixel selection means for selecting a pixel of interest (S22 in figure 10 is a pixel of interest) which is located at a position closest to a pixel for interpolation (T in figure 10 is a pixel for interpolation or a new pixel nearest to the pixel of interest S22) to be newly generated between pixels (hereinafter, simply referred to as “new pixel”) and adjacent pixels (in figure 10, pixels S11, S12, S13, S21, S23, S31, S32, S33 are adjacent pixels) adjacent the pixel of interest (S22 is a pixel of interest) from the pixels of the low-resolution image, respectively, and;

new pixel data calculation means (at least in column 29, lines 37-64) for calculating the difference (column 29, lines 50-59) between the adjacent pixels putting between the pixel of interest, obtaining the amending value on the basis of the difference and the distance (column 29, lines 50-59) between the pixel of interest and the new pixel, and calculating the data value of the pixel of interest, the difference, and the amending value (column 29, lines 60-64).

**For claims 2-3,** see the rejection of claim 1 above.

***Allowable Subject Matter***

**5. Claims 4-15** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

**For claims 4-6,** the prior art on record fails to teach or suggest, alone or in combination, the new pixel data calculation means is one which calculates data F of new pixel composing the high-resolution image by a formula of  $F = A + (i/2)(E - D) + (j/2)(C - B)$ , on the basis of data A of pixel of interest, data B of upper pixel, data C of lower pixel, data D of left pixel, data E of right pixel, and the position of the new pixel (i, j) which are represented by a distance "i" in the horizontal direction and a distance "j" in the vertical direction from the pixel of interest to the new pixel.

**For claims 10-12,** the prior art on record fails to teach or suggest, alone or in combination, the new pixel data calculation means is one which calculates data F of the new pixel by a formula of  $F = A + (j/2)(C - B)$  on the basis of the data A of pixel of interest,

data B of upper pixel, data C of lower pixel and the distance "j" in the vertical direction from the pixel of interest to the new pixel.

**Claims 7-9 and 13-15** are depending from the objected claims 4-6 and 10-12, therefore they are objected for the same reasons.

**Other prior art cited**

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

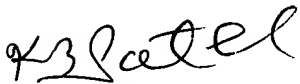
Carlson et al. (US 6,650,704 B1) disclose a method of producing a high quality, high resolution image from a sequence of low quality, low resolution images that are undersampled and subject to jitter.

Zavaljeveski et al. (US 6,236,766 B1) disclose a method and apparatus for zooming digital images.

**Contact information**

7. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to **Kanji Patel** whose telephone number is (703) 305-4011. The examiner can normally be reached on Monday through Friday from 8:00 a.m. to 6:30 p.m. Friday off. If attempts to reach the examiner by phone are unsuccessful, the examiner's supervisor, **Mehta, Bhavesh**, can be reached on (703) 308-5246.

Any inquiry of general nature or relating to the status of this application should be directed to the **Group receptionist** whose telephone number is (703) 305-3800. The **Fax number** for this group is (703) 872-9306.



Kanji Patel  
Patent Examiner  
Group Art Unit 2625  
April 2, 2004